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Chemistry 2.5

Worksheet 2

Name _____

Question One

Complete the table below

Name	Structure		
Pent-1-ene	н н н н н 		
2-methylbut-1-ene	Н Н СН ₃ Н — С — С — С — Н — Н		
6-methyl hept-1,5-diene	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		
Pent-1-yne	н н н 		
But-1-yne	H——с—с—с—н СН ₃		

Question Three

Which of the molecule above are structural isomer of each other? Justify your answers.

Pent-1-ene and 2methyl but-1-ene are structural isomer of each other. This is because they both have the same molecular formula C_5H_{10} but the atoms are arrange in a different order (different structural formula).





Question Two

Discuss why none of molecules above can exist as geometric isomers.

In order to exist as geometric isomer, the molecule must contain double bond.

For pent-1-yne and but-1-yne, the molecules does not contain double bond.

On top of the double bond requirement, the group on each of the carbon in the double bond has to be different.

None of the alkene molecule above meet the requirement as the group bonded in the carbon containing the double bond are the same (either CH₃ or H)

Question Three

Draw a structural isomer of 2-methylbut-1-ene that can exist as geometric isomer.

